

Appl. No.: 09/522,724
Amdt. dated January 15, 2004
Reply to final Office action of November 18, 2003

Patent
Docket No.: 247/212 US
7015272001

REMARKS

Claims 1-6, 21, 25 and 27 are pending. Claims 1-2 and 21 stand rejected under 35 U.S.C. § 102(e) based on U.S. Patent No. 6,159,156 issued to Van Bockel ("Van Bockel). Claims 3-6 and 25 stand rejected under 35 U.S.C. § 103 based on Van Bockel in view of U.S. Patent No. 5,967,986 issued to Cimochoowski, et al. ("Cimochoowski").

Claim 1 stands rejected based on Van Bockel.

Van Bockel discloses:

A device 1, 10 according to the present invention is especially suitable for measurement of pressure within an aneurysmal sac 20 in an artery 21, for example an artery in the abdomen of a human body, as shown in FIG. 3.

An aneurysm is dangerous to the health of a human or animal since rupture of especially an artery would lead to internal bleeding with possible lethal consequences. In order to negate this risk endoprostheses are used for bridging an aneurysm. In FIG. 3 a tube endoprosthesis is shown, positioned within an artery 21. The endoprosthesis 22 comprises a flexible, closed wall 23, and is provided fully or at both ends with a stent 24a, 24b. A first end 25 of the endoprosthesis is positioned within the artery 21 at the upstream side of the aneurysm 20, by means of the stent 24a, the second end 26 at the opposite, downstream side of the aneurysm by means of the second stent 24b. An endoprosthesis of this type is known in the state of the art and is for example manufactured under the registered trademark Vanguard by the Meadox Boston Scientific Corporation, USA. However, all kinds of endoprostheses can be used, for example a tube, bifurcated, uni- or bilateral prosthesis. A device 1, 10 according to the present invention is introduced into the aneurysmal sac 20 between the wall 27 of the aneurysmal sac and the endoprosthesis 22. In FIG. 3 a device 1 according to FIG. 1 is positioned left of the endoprosthesis, within clotted blood in the aneurysmal sac. In the same FIG. 3 a device 10 according to FIG. 2 is positioned within the aneurysmal sac 20, right of the endoprosthesis 22, and is attached to the endoprosthesis by means of the hook means 11. These positions are only shown in one figure for elucidation purposes and might normally not be combined. Other means for positioning a device according to the present invention within an aneurysmal sac or a blood vessel can be used in any suitable manner.

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(Col. 4, line 62 through Col. 5, line 28). Van Bockel does not disclose "a biosensor attached to at least one of the graft and the expandable support structure, the biosensor comprising a pressure sensor having at least a portion exposed to a region external to the stent graft to sense pressure beyond the outer surface of the graft within the weakened region of the blood vessel when the graft is secured within the blood vessel," as recited in amended claim 1. Therefore, Applicants respectfully submit that claim 1 is patentable over Van Bockel. Given that claims 2-6, 21 and 25 depend from claim 1, these claims are also believed patentable over Van Bockel for at least this same reason.

Claims 3-6 and 25 stand rejected based on Van Bockel in view of Cimochowski.

Van Bockel does not disclose "a biosensor attached to at least one of the graft and the expandable support structure, the biosensor comprising a pressure sensor having at least a portion exposed to a region external to the stent graft to sense pressure beyond the outer surface of the graft within the weakened region of the blood vessel when the graft is secured within the blood vessel," as recited in amended claim 1.

Cimochowski discloses:

FIG. 19 illustrates an integrated circuit (IC) sensor 220 mounted on a stent body 222, so that the IC sensor overlies a sensor window opening 224 in the stent body. Conductive adhesive or solder drops 228 couple the IC sensor contacts to the stent body (or to conductors that are coupled to one of the electronic assemblies shown in FIGS. 1-6). A biocompatible coating 226 encloses the IC sensor, except in the area of the sensor window opening through which the IC sensor is in contact with the fluid flowing through the lumen of the stent.

(Col. 22, lines 50-59). Cimochowski does not disclose "a biosensor attached to at least one of the graft and the expandable support structure, the biosensor comprising a pressure sensor having

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at least a portion exposed to a region external to the stent graft to sense pressure beyond the outer surface of the graft within the weakened region of the blood vessel when the graft is secured within the blood vessel," as recited in claim as amended.

Even if Van Bockel and Cimochoowski were combined, the combination would neither teach nor suggest "a biosensor attached to at least one of the graft and the expandable support structure, the biosensor comprising a pressure sensor having at least a portion exposed to a region external to the stent graft to sense pressure beyond the outer surface of the graft within the weakened region of the blood vessel when the graft is secured within the blood vessel," as recited in amended claim 1. Therefore, applicants respectfully submit that claim 1, as amended, is patentable over Van Bockel in view of Cimochoowski. Given that Claims 3-6 and 25 depend from claim 1, applicants submit that these claims are patentable over Van Bockel in view of Cimochoowski for at least this same reason.

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CONCLUSION

Entry of this Amendment, and allowance of the claims is respectfully requested. The Examiner may call the Assignee's attorney at (650) 849-4422 to further advance prosecution of this case to issuance.

If the Commissioner determines that additional fees are due or that an excess fee has been paid, the Patent Office is authorized to debit or credit (respectively) Deposit Account No. 50-2518, referencing billing no. 7015272001.

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Respectfully submitted,

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